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JANUARY 31.

Mr. CHARLES MORRIS in the chair.

Twenty-eight persons present.

Mimicry among Plants.—PROF. J. T. ROTHROCK remarked that among animals mimicry is usually related to the safety of the individual, or less frequently to the ease by which it may conceal itself and thus more readily capture its food. Whatever may be the cause of mimicry among plants, or by whatever governing forces one plant in the long run, may come to resemble another more or less remotely related to it, it is clear that neither of the causes which are associated with mimicry among animals can obtain in the vegetable kingdom.

These mimetic cases may conveniently be ranged under two heads.

1. Those in which we find the resemblances between plants in groups clearly distinct. The lower of these may sometimes well be called anticipating or prophetic types.

2. Those found between plants in the same natural family, where the descent within recent period, of one from the other, may reasonably be supported by all who admit the doctrine of evolution. This resemblance is of course often merely external, disappearing under even the slightest examination; as, for example, when one glances hastily at a specimen, particularly an herbarium specimen, of *Zygadenus elegans* Pursh, and then compares it with a narrow-leaved specimen of *Swertia perennis*. There are few who will not be struck with the likeness, yet the former is a well marked representation of the monocotyledonous group, and the other as evidently one of the dicotyledonous plant. It is somewhat startling to find along with marked points of distinction that there exist certain structural resemblances; thus one may well compare the unusual markings found on the bases of the perianth divisions in *Zygadenus* with the equally unusual gland found at the base of the petals in *Swertia*. There is in these resemblances nothing which can in any sense be called prophetic, because the relationship between the examples is quite too remote.

The case is, however, somewhat different when one compares the shape of some of the young liverwort with the prothallus of some ferns. Here the resemblance is often very marked and the line of relationship not so distant. It might almost be said that the permanent form of the liverwort clearly resembled the early, transient form of the fern.

Or, as another instance, compare the protonema of a moss before the shoot appears which is to develop into the erect aerial branch, with one of our filamentous algæ. Here again we have so marked a general resemblance that it may well enough be classed with the prophetic types.

The second group to which allusion has been made—those in which the resemblance is between related plants, may be fairly illustrated by the resemblance between *Nepeta Glechoma* and *Lamium amplexicaule*, especially when (as is often the case in *Nepeta*) the petioles are very much reduced in length.

Another unusual resemblance comes to mind. One may easily understand why the cup found about the base of the stigma in so many of the Lobeliaceae should be so exactly repeated in the allied order of Goodeniaceae. But how are we to explain its appearance in *Gaura* (one of the Onagraceae) which can hardly be regarded as closely related to either of the above orders. These resemblances and the questions growing out of them are to be further considered in a paper in course of preparation.

Messrs Lawrence J. Morris, Stewart Culin and Roberts Le Boutilier were elected members.

The following were ordered to be printed:—